

US Army
417th BSB, Kitzingen

Implementation Plan for the Environmental Management System according ISO 14001 for the 417th BSB

June 2004

US Army Corp of Engineers
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ERM GmbH

Neu-Isenburg, June 01, 2004

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SUMMARY

Summary

According the US Army Implementers Guide the Implementation Plan for the Environmental Management System (EMS) according to the ISO 14001 has to be developed based on the EMS Self Assessment until September 30, 2004.

The 417th BSB has conducted the required Self Assessment and documented the result in the Self Assessment Report, dated March 15, 2004. This report serves as the basis for the Implementation Plan.

Based on the US Army Requirement the following milestones have to be achieved:

1. March 30, 2004: Self Assessment completed
2. September 30, 2004: Implementation Plan by CDR signed
3. March 30, 2005: List of environmental aspects established
4. March 30, 2005: EMS Awareness Training completed
5. December 2005: EMS Management Review completed

The 417th BSB Implementation Plan is split in seven milestones with the following due dates. This plan ensures that the US Army time schedule is meet:

Milestone	Start date	End date
Milestone 1: EMS Framework defined	March 2004	October 2004
Milestone 2: Aspects & Impacts evaluated	March 2004	December 2004
Milestone 3: Legal requirements defined and established	April 2004	December 2004
Milestone 5: EMS Documentation developed	May 2004	July 2005
Milestone 6: FGS Media EMS Procedures and SOPs for operational control developed	September 2004	July 2005
Milestone 7: EMS related training established	April 2004	December 2005

The detailed time schedule including responsibilities and expected time resources of involved parties is enclosed in the Annex.

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ANNEX:

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1 INTRODUCTION

1.1 PURPOSE AND SCOPE OF WORK

ERM GmbH (ERM) was commissioned in September 2003 by US Army Corps of Engineers, Wiesbaden, Germany to develop the EMS Implementation Plan for the 417th Base Support Battalion (BSB).

The scope of the EMS Implementation Plan includes all relevant departments of the BSB, military units and tenant organizations assigned to the 417th BSB.

The Implementation Plan is based on the results of the EMS Self Assessment (March 15, 2004). The Implementation Plan is designed to serve the 417th BSB as preparation, organization and guiding document during the EMS implementation. The activities described in the implementation plan and the Annex (Excel-Sheet) are mainly focused on the requirements according ISO 14001. This means that not all findings / recommendations (e.g. classified as "improvement") documented in the Self Assessment Report are separately mentioned in the Implementation Plan. The implementation of these issues will be discussed and organized as ongoing topic of the implementation project.

The plan differentiates between milestones with related steps and activities. For each activity the most important responsibilities of the key parties and their expected needed time resources are developed.

It should be taken into account that the Implementation Plan is a working document and can only serve as a rough guideline. Therefore it has to be adapted to the needs of all involved parties during the project as appropriate. This includes the definition of new activities, the adjustment of the timeframe and the responsibilities and resources of involved parties.

1.2 STRUCTURE OF THE IMPLEMENTATION PLAN

The introductory chapter 1 is followed by seven main chapters, which are describing the different milestones. For each project steps the following information are given:

- key requirements according to the ISO 14001,

- recommendations according to the Self Assessment (the table of findings and recommendations from the Self Assessment Report), and
- description of the steps.

1.3

THE EMS IMPLEMENTATION AT THE 417TH BSB

The 417th BSB is committed to implement an EMS according ISO 14001 as required by Executive Order 13148 “Greening the Government Through Leadership in Environmental Management”, April 21, 2000 and Memorandum from Deputy Assistant Secretary of the Army, July 13, 2001.

An EMS will serve as the part of the 417th BSB overall management system that integrates environmental concerns and issues in the organization’s management process. The EMS will address organizational structures, planning activities, responsibilities, processes and resources to manage environmental topics and integrate these in the day-today business.

The EMS will be developed to control the impacts of the 417th BSB activities and allowing it not only to achieve and maintain compliance but to identify and manage proactively future issues that might impact the military mission. Furthermore the EMS will establish processes to continuously improve the environmental performance of all activities performed on the installations of the BSB.

As the US Army has already established several environmental related processes (e.g. internal audits) the EMS will mainly serve as an “umbrella” of the already established and the new processes to manage environmental issues.

During the implementation phase all activities performed by the 417th BSB and of the tenant organizations and military units will be taken into account. Consequently the definition of responsibilities and duties as part of internal processes will cover all organizational bodies assigned to the 417th BSB and have to be agreed with them.

The detailed list of steps, the related activities with estimations of time resources and responsibilities of related parties are documented in the Excel-Sheet, which is part of the Annex.

The following link opens this Excel-Sheet:

[Implementation Plan - Milestone 1: Framework](#)

2.1 STEP 1: MISSION FOCUS ESTABLISHED

2.1.1 Requirements according to the ISO 14001

The ISO 14001 does not define specific requirements.

2.1.2 Recommendations according to the Self Assessment

During the self assessment no specific recommendations were identified.

2.1.3 Description of the milestone

The key target of this step is to get a good understanding about all mission driven activities in order to ensure that the EMS meets the requirements of the military units. This includes to

- get a good understanding about all military units / tenant organizations on the 417th BSB,
- understand their environmental related issues and possibilities to group comparable units / tenants in order to make EMS implementation more easier, and
- define the roles and the level of their integration into the EMS.

It should be taken into account that at this stage only the general integration strategy can be evaluated. Furthermore the differences between different military units and tenants will become clearer to all involved parties. The results of this evaluation should be taken into account for an update of the implementation plan

The key activities are related to gathering information (e.g. by review of documentation and interviews) and to further discuss the implementation approach.

2.2 *STEP 2: EMS IMPLEMENTATION TEAM NOMINATED*

2.2.1 *Requirements according to the ISO 14001*

The ISO 14001 does not define specific requirements.

2.2.2 *Recommendations according to the Self Assessment*

During the self assessment no specific recommendations were identified.

2.2.3 *Description of the step*

Currently the EMS Implementation Team is based on the participants of the EQCC. Due to the complexity of the project it should be taken into account to develop a core EMS Implementation Team.

This should include the most relevant BSB departments (EMO, Building & Grounds, Utilities with the FE's, Housing, DOL) and tenants (BASOPS, Hospital, AAFES).

Regarding the military units it should be evaluated to what extend higher-lever organizational units of the military units can serve as key contacts and bodies who can serve as decisions-makers.

3 ***MILESTONE 2 : ENVIRONMENTAL ASPECTS AND IMPACTS EVALUATED***

The detailed list of steps, the related activities with estimations of time resources and responsibilities of related parties are documented in the Excel-Sheet, which is part of the Annex.

The following link opens this Excel-Sheet:

[Implementation Plan - Milestone 2: Aspect & Impact Evaluation](#)

3.1 ***STEP 1: ENVIRONMENTAL ASPECTS & IMPACTS EVALUATED (BSB INTERNAL)***

3.1.1 ***Requirements according to the ISO 14001***

Please compare to section 3.3.1.

3.1.2 ***Recommendations according to the Self Assessment***

Please compare to section 3.3.2.

3.1.3 ***Description of the step***

The key target of this milestone is to evaluate the environmental aspects and impacts of the processes of the 417th BSB. This includes to

- develop and agree the methodology for the evaluation,
- identify / standardize the activities of all related parties,
- conduct a first ranking of all activities,
- review of the first ranking (desktop study) by the related parties,
- conduct trainings for the related parties,
- conduct interviews with all parties during which the aspects & impacts will be started to be evaluated, and
- collect and agree the complete and finalized evaluation of all parties.

In this first step, the evaluation will be focused on the 417th BSB internal processes and the most important tenant organizations (67th Combat Support Hospital, AAFES, BASOPS).

The face-to-face interviews / workshop will ensure that all parties are intensively involved in the evaluation. This will improve the understanding about their own environmental aspects & impacts. It can be expected that this will result in better working results of the later milestones and steps.

3.2 *STEP 2: ENVIRONMENTAL ASPECTS & IMPACTS EVALUATED (BSB EXTERNAL)*

3.2.1 *Requirements according to the ISO 14001*

Please compare section 3.3.1.

3.2.2 *Recommendations according to the Self Assessment*

Please compare section 3.3.2.

3.2.3 *Description of the step*

The evaluation will cover all organizational units assigned to the 417th BSB which were not covered in step 1. This includes the military units and further tenants (e.g. DoDDS). Regarding the military units it has to be developed how far comparable units can be grouped in order to reduce the work load.

The key target of this milestone is to evaluate the environmental aspects and impacts of the processes of the military units and tenants. This includes to

- develop and agree the methodology for the evaluation,
- identify / standardize the activities of all related parties,
- conduct a first ranking of all activities,
- review of the first ranking / desktop study by the related parties,
- conduct trainings for the related parties,
- conduct interviews with all parties during which the aspects & impacts will be started to be evaluated, and
- collect and agree the complete and finalized evaluation of all parties.

The face-to-face interviews / workshop will ensure that all parties are intensively involved in the evaluation. This will improve the understanding about their own environmental aspects & impacts. It can be expected that this will result in better working results of the later milestones & steps.

3.3 *STEP 3: BSB INTERNAL EMS PROCEDURE "ENVIRONMENTAL ASPECTS AND IMPACTS" EVALUATED*

3.3.1 *Requirements according to the ISO 14001*

Regarding the ISO 14001 the organizational units have to fulfill the following requirements:

- establish and maintain a procedure to identify the environmental aspects of its activities, products and services that it can control and over which it can be expected to have an influence,
- establish and maintain a procedure to determine those aspects which have or can have significant impacts on the environment, and
- keep this information up-to-date

3.3.2 *Recommendations according to the Self Assessment*

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Environmental aspects</i>			
Procedure(s) to identify environmental aspects of day-to-day activities	No procedure(s) established to identify environmental aspects.	Establish procedure(s) to identify the environmental aspects of day-to-day activities. Differentiate between BSB owned processes and tenant processes. Evaluate also the key tenant processes to identify their impact on the BSB service processes.	C 3 I 2
Identification of environmental aspects	Environmental aspects not identified.	A CFT should document all relevant activities, processes and services and identify environmental aspects of day-to-day activities.	C 3

ISO-14001-Requirement	Finding	Recommendation	P
<i>Environmental aspects</i>			
Defining criteria for determining the significance of environmental aspects	Criteria for determining the significance of environmental aspect are not determined.	Criteria for determining the significance of environmental aspect should be established. The US Army method described in the EMS Implementers Guide should be used or adopted regarding the needs of the BSB.	C 3
Determination of significant environmental aspects	Significant environmental aspects are not determined.	The CFT should review and evaluate the aspects identified and should determine their significance using the criteria. The results of the evaluation should be documented in the IMA database as far as this is possible (due to potential technical constraints)	C 3
Implementation of ERG	The ERG is not systematically implemented at the BSB.	The budgeting process of work orders should be adopted in order to ensure, that considerations of environmental impacts of relevant projects is conducted. See also chapter 4.8	C 1, I 2
Integration of StoV Giebelstadt	Reportedly, the integration of StoV Giebelstadt during new construction processes is not always ensured.	As operator of the new facilities the StoV Giebelstadt should be integrated in the decision / planning process. The implementation of the ERG for projects at Giebelstadt AAF should be ensured.	I 2

ISO-14001-Requirement	Finding	Recommendation	P
<i>Environmental aspects</i>			
Environmental data	Environmental data is not systematically collected and evaluated. Environmental data is collected by different departments but no aggregated balance sheet is established.	An input-output-balance should be developed to evaluate the environmental impacts of the BSB and tenant activities. Information already developed for regulatory or other purposes may be used in this process. As part of the EMS Implementation the level of detail of data collection should be improved as appropriate.	I 2
Environmental aspects of contractors	Currently, environmental aspects of contracted work and the environmental performance of contracts are not assessed.	Identify significant outsourced services and assess environmental performance of contractors.	C 2
P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)			

3.3.3

Description of the step

The key target of this milestone is to develop the EMS procedure regarding the regular evaluation of the environmental aspects & impacts. This includes to

- develop and agree the methodology for the evaluation,
- develop a draft version of the procedure,
- conduct an interview / workshop with related parties, and
- develop the final version of the procedure.

The results of the first evaluation (step 1 and 2) should be taken into account during the evaluation of the procedure.

4 **MILESTONE 3: LEGAL REQUIREMENTS DEFINED AND ESTABLISHED**

The detailed list of steps, the related activities with estimations of time resources and responsibilities of related parties are documented in the Excel-Sheet, which is part of the Annex.

The following link opens this Excel-Sheet:

[Implementation Plan - Milestone 3: Legal requirements defined and established](#)

4.1 **STEP 1: ALL APPLICABLE PERMITS / NOTIFICATIONS IDENTIFIED AND UPDATED**

4.1.1 **Requirements according to the ISO 14001**

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements:

- establish and maintain a procedure to *identify and have access to* legal and other requirements to which the organization subscribes and which is directly applicable to the environmental aspects of its activities, products and services.

4.1.2 **Recommendations according to the Self Assessment**

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Environmental-related permits and injunctions</i>			
List of permits and facilities requiring notification	The current list of permits and facilities requiring notification is dated January 28, 2000. It is unclear if this list is on the current status and how it is regularly updated.	Check and update list of permits and facilities requiring notification (see chapter 3.1).	L 3

ISO-14001-Requirement	Finding	Recommendation	P
Permitting status of all facilities	Currently it is not ensured, that all facilities (e.g. storage areas) are identified and notified to the authorities as required (e.g. responsibility to ensure permit status of spray paint both at BASOPS Leighton is not clear).	Review permitting / notification status of all facilities. Obtain permits / notification in relationship with state construction agencies as needed. Define responsibility for facilities not owned / operated by the 417 th BSB.	L 3, C 3
Operating permits	The BSB does not file the operating permits for their installations on a systematical matter. It is unsure, which permits are existing.	Develop a cadastre of all operating permits (e.g. waste water discharge, air emissions). Obtain (at least) copies of all permits from the state construction agencies.	L 3, C 3
Legal requirements for electromagnetic emissions	The FGS Standards does not cover requirements regarding electromagnetic waves defined in German regulations (e.g. 26. Ordinance on Electromagnetic Fields). It is not defined which facilities fall under these specific regulations. It is not clear who is responsible for operation and permitting / notifying the facilities.	Identify facilities located on BSB installation, which emit electromagnetic weaves. Identify how far these facilities have to comply with German regulations. Identify who is the responsible body to operate these facilities.	L2, C 2
List of permits and facilities requiring notification for Giebelstadt AAF	Currently StoV Giebelstadt is identifying all relevant facilities, as the current list at the local authority is outdated.	StoV Giebelstadt has to ensure, that all facility have the necessary permits / notifications. The US Army should receive a list of all relevant facilities and their e.g. storage capacities. Based on this list adequate handling / storage must be ensured by the US Army.	C 2

ISO-14001-Requirement	Finding	Recommendation	P
Status of non-compliance issues unclear.	It is unclear how far deficiencies identified December 2002 by the local authority in Harvey Barracks are already resolved.	Check status of non-compliance issues. Define responsibilities to resolve deficiencies. Check if further audits were conducted and ensure that findings are resolved.	C 3, L 3
Status of non-compliance issues unclear.	It is unclear who was responsible for which deficiencies identified in Harvey Barracks.	Define procedure / responsibility how to proceed in case of non-compliance issues in the future (see chapter 4.3).	C 3, L 3

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

4.1.3 *Description of the step*

As part of this step, the current status of legal compliance based on applicable permits and notifications will be established. Currently it is unsure, if the 417th BSB maintains copies of their environmental permits. Therefore it is required to:

- identify and collect all permits / notifications which are subject to the BSB (e.g. by contacting the “Bundesvermögensamt” or internal sources),
- ensure that for all relevant facilities the necessary permits / notifications are available or apply for these if necessary, and
- review all permits and ensure that all permits are up-to-date and apply for changes if necessary.

These activities will be coordinated by the EMS Implementation Team. However the detailed review of permits and necessary further actions are in the responsibility of the designated BSB-departments or organizational bodies and are not covered by the EMS Implementation Plan in detail.

4.2 *STEP 2: ALL KEY LEGAL REQUIREMENTS IDENTIFIED AND DOCUMENTED*

4.2.1 *Requirements according to the ISO 14001*

Please compare to section 4.1.1.

4.2.2 *Recommendations according to the Self Assessment*

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Legal requirements</i>			
Legal requirements defined in the permits	Legal requirements defined in the permits are not systematically identified. Hence it is not ensured, that the BSB knows and takes into account all legal requirements.	Review all operating permits and check if legal requirements are met (e.g. thresholds, cycle of measurements, reporting requirements)	L 3, C 3
Responsibility to maintain, and review permits / notification.	Currently there is no procedure, which defines who is responsible to hold and manage all operating permits.	Define who is responsible to hold, manage and update permits. Define which information by other departments (e.g. DPW EMO, DPW Utilities) is communicated to the manager of the list, in order to ensure that the list is always up-to-date.	C 2
Inventory / List of applicable environmental legislation	The BSB has access to environmental legislation via the GFGS and additional sources. In general the BSB is aware of the applicable laws. However, the GFGS were not reviewed in a documented, systematic manner to identify all legal requirements applicable to the BSB. The German national and local laws are not reviewed by the BSB to identify applicable requirements.	A nominated person should maintain up-to-date listings of applicable environmental legal, GFGS and other requirements through the maintenance, access and review of the relevant references at least annually. An inventory of environmental legislation should be established based on the GFGS. The initial documentation could be a list of all GFGS chapters / paragraphs with a mark of the application to the BSB.	C 2

ISO-14001-Requirement	Finding	Recommendation	P
<i>Legal requirements</i>			
Inventory of all permits (see chapter 3.1)	There is no central register of all environmental related permits and requirements defined in the permits and their riders.	A register of all permits and riders should be developed to ensure legal compliance. This register should also define the responsible department / person to comply with this requirement.	C 1
P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)			

4.2.3 *Description of the step*

The key target of this milestone is to ensure that all legal requirements are known and met by the 417th BSB. This includes to

- evaluate which legal requirements are related to these facilities (e.g. due to the permits),
- develop a list with applicable key requirements defined in the permits and GFSG requirements, and
- identify and develop a list of duties (e.g. monitoring requirements) and internal responsibilities to fulfill these requirements (this is linked with milestone 6).

The evaluation of all facilities, related legal requirements and permits / notifications is a long term running topic which has to be done by the responsible BSB - departments or tenants / military units. This process will be initiated, supported and regular updated by the EMS implementation project. However, the detailed work is not part of the project as this is an internal duty independent of the EMS.

4.3 **STEP 3: EMS PROCEDURE "IDENTIFICATION OF LEGAL AND OTHER REQUIREMENTS" DEVELOPED**

4.3.1 **Requirements according to the ISO 14001**

Please compare to section 4.1.1

4.3.2 **Recommendations according to the Self Assessment**

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
Procedure to identify and have access to legal and other requirements	No procedure exists to ensure that the BSB will identify all legal and other requirements and that changes are communicated to the relevant departments.	Procedure that defines the mechanism (additional to the GFSGS) for identifying and maintaining current legal and other requirements and regulations applicable and for maintaining access to up-to-date editions of those requirements should be established and documented.	C 3
Documentation of responsibilities regarding update of environmental legislation	Currently it is defined, that EEA is responsible to review changes in environmental legislation and to update the GFSGS at least every two years. It is not documented on BSB level who is responsible to identify changes in local law and how to communicate these to the effected departments in a shorter rhythm than 2 years.	Delegate responsibilities to maintain inventory of applicable environmental legal and other requirements to a nominated person. This should include regulations regarding the communication of relevant changes to effected departments.	C 2

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

4.3.3

Description of the step

The key target of this milestone is to establish the procedure, which describes the internal process and responsibilities to handle legally related issues (e.g. permits / notifications) and to identify legal requirements on a regular basis. This includes to define and establish the internal process and responsibilities regarding the management of legal requirements and permits/notifications.

As part of the EMS, a procedure will be developed which describes and defines the management of environmental related legal issues for all parties of the BSB. This will also include the definition of the relationship to and the duties of external parties (e.g. "Bundesvermögensamt") and military units / tenants.

The development of the procedure will be based on

- the development of a draft version,
- conduct an interview / workshop with related parties, and
- the development of the final version based on the results of the workshop.

The detailed list of steps, the related activities with estimations of time resources and responsibilities of related parties are documented in the Excel-Sheet, which is part of the Annex.

The following link opens this Excel-Sheet:

[Implementation Plan - Milestone 4: EMS Program developed](#)

5.1***STEP 1: ENVIRONMENTAL POLICY REVIEWED AND APPROVED*****5.1.1*****Requirements according to the ISO 14001***

Regarding the ISO 14001 standard the organization has to fulfill the following requirements:

- Definition of the Environmental Policy by the top management of the site. The Environmental Policy must:
 - Be appropriate to the nature, scale, and environmental impacts of activities, products, and services,
 - include a commitment to continual improvement and prevention of pollution,
 - include a commitment to comply with relevant environmental legislation, regulations and other requirements to which the organization subscribes,
 - provide the framework for setting and reviewing environmental objectives and targets,
 - be documented, implemented and maintained,
 - be communicated to all employees, and
 - be available to the public.

5.1.2

Recommendations according to the Self Assessment

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Environmental policy</i>			
Communication of environmental policy	The environmental policy was not communicated so far.	Communicate environmental policy to the employees and external interested parties.	C 3
Ensure Environmental Policy covers all relevant environmental aspects/impacts	Currently the Environmental Policy is not based on a systematic review of the environmental aspects / impacts as this evaluation will be part of the EMS implementation.	Evaluate after analysis of aspects / impacts if the environmental policy should be adopted.	C 3
Environmental Policy is not basis for Environmental Program	The current environmental targets / programs (as part of the "Army's Community of Excellence") were not developed on the basis of the Environmental Policy.	Ensure that the Environmental targets / program (as part of the EMS) will cover all key commitments of the Environmental Policy.	C2

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

5.1.3

Description of the step

The key target of this working step is to ensure, that the current policy is adapted to the results of the aspects & impact evaluation.

Therefore the results of the evaluation will be taken into account and compared to the commitments currently defined in the policy. Based on discussions a new version of the policy will be developed if necessary.

5.2 *STEP 2: EMS PROGRAM AND OBJECTIVES & TARGETS DEVELOPED (BSB INTERNAL)*

5.2.1 *Requirements according to the ISO 14001*

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements:

- establish and maintain documented environmental objectives and targets at each relevant function and level within the organization,
- establish and review the objectives after consideration of aspects related to
 - significant environmental impacts, applicable legal and other requirements, technological options, financial, operational and business requirements and the views of interested parties,
 - objectives and targets shall be *consistent with the environmental policy*, including the commitment to prevention of pollution,
 - establish and maintain (a) program(s) for *achieving* objectives and targets,
 - designate *responsibility* for achieving objectives and targets *at each relevant function and level* of the organization,
- include the *means and timeframe* by which objectives and targets are to be achieved, and
- amend program(s) where relevant to ensure that environmental management applies to *new developments and new/modified activities, products or services*.

5.2.2

Recommendation according to the Self Assessment

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Objectives and targets</i>			
Definition of environmental objectives and targets	The current objectives and targets are not based on the evaluation of environmental aspects and impacts.	Establish and maintain documented environmental objectives and targets based on significant environmental aspects in line with the environmental policy.	C 3
Objectives and targets for the BSB and the tenants	The existing objectives and targets did not differentiate between BSB and tenants.	Due to different responsibilities and control targets and objectives should be separated for both parties.	C 3
<i>Environmental program</i>			
Update the ACOE program "Environmental Management"	The current environmental program is not based on the systematic evaluation of environmental aspects & impacts.	Based on the updated environmental targets and objectives the BSB should further develop the ACOE program. The program should identify the means, timeframes and those responsible for achieving associated objectives and targets. Responsibility should be identified at each relevant function and level of the organization.	C 3
Integration of IMA-E environmental programs	Currently, the ACOE Environmental program is not linked to the IMA-E environmental program (if such a program currently exists).	When updating the BSB environmental program it should be ensured, that environmental targets & objectives of IMA-E are integrated / supported by the BSB environmental program.	C 1, I 2

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

5.2.3

Description of the step

The key target of this step is to develop the first environmental program. This includes to

- review the results of the evaluated environmental aspects & impacts,
- evaluate and decide how the environmental program will be integrated in the ACOE-concept,
- develop a first list of potential objectives and targets and the related program as discussion paper for the later workshop,
- conduct workshops with all related parties in which further objectives and targets will be developed (including timeframes and responsibilities), and
- collect working results and establish the first environmental program.

5.3 *STEP 3: EMS PROGRAM AND OBJECTIVES & TARGETS DEVELOPED (BSB EXTERNAL)*

5.3.1 *Requirements according to the ISO 14001*

Please compare to section 5.2.1.

5.3.2 *Recommendations according to the Self Assessment*

Please compare to section 5.2.2.

5.3.3 *Description of the step*

The key target of this step is to develop the first environmental program. This includes to

- review the results of the evaluated environmental aspects & impacts,
- evaluate and decide how far parties not under the chain of command by the BSB Commander will be required to commit their selves towards the achievement of environmental objectives and targets,
- develop a first list of potential objectives and targets and the related program as discussion paper for the future workshop,
- conduct workshops with all related parties in which further objectives and targets will be developed (including timeframes and responsibilities), and
- collect working results and establish the first environmental program.

The key issue will be to develop the level of commitment from the different military units / tenant organizations to improve their environmental performance. Therefore it might be helpful, to develop separate environmental programs for the different organizational bodies and to develop one BSB wide program which covers all the single environmental programs.

As part of milestone five the EMS documentation will be developed. The ISO 14001 only includes selected requirements regarding the need to document procedures. However it is usual to establish written and approved procedures, which covers the relevant elements of the ISO 14001.

Regarding an EMS for the US Army the written documentation of responsibilities and internal processes is common. Hence the EMS should follow this attitude.

In the following the different elements of ISO 14001 and the implementation of related procedures are described. The focus of the activities described in the Implementation Plan lies on the development of the procedures. Further internal activities by the related parties to implement the procedure into their daily work are not described, as this is part of their general duties. Furthermore the different necessary activities of the parties are currently unknown have to should be defined in later stages of the implementation.

The detailed list of steps, the related activities with estimations of time resources and responsibilities of related parties are documented in the Excel-Sheet, which is part of the Annex.

The following link opens this Excel-Sheet:

[Implementation Plan - Milestone 5: EMS Documentation developed](#)

6.1 *STEP 1: FRAMEWORK OF EMS DOCUMENTATION AND EMS RESPONSIBILITIES DEVELOPED*

6.1.1 *Requirements according to the ISO14001*

Regarding the responsibilities, the organization has to fulfill the following requirements:

- Define, document and communicate *roles, responsibility and authorities* in order to facilitate effective environmental management
- Provide *resources* essential to the implementation and control of the EMS (including human resources, specialized skills, technology and financial resources)
- Appoint (a) specific *management representative(s)* who, irrespective of other responsibilities, shall have defined roles, responsibilities and authority for:
 - ensuring that the environmental management system requirements are established, *implemented* and maintained
 - reporting on the *performance* of the EMS to top management for review and as a basis for improvement of the EMS

Regarding the documentation, the organization has to fulfill the following requirements:

- Establish and maintain EMS information in paper or electronic form, to:
 - describe the *core elements* of the EMS and their *interaction and* provide direction to related documentation
- Establish and maintain procedures and responsibilities for *creating and modifying* the documents required by this standard

6.1.2

Recommendations according to the Self Assessment

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Structure and responsibility</i>			
Definition of roles, responsibility and authorities with regard to environmental issues	Even if responsibilities are defined in several documents it is very likely, that these documents contain inconsistencies or defined roles, which are not formally tasked (e.g. P 2 Coordinator).	Check currently existing responsibilities and summarize key responsibilities between the different BSB departments in a systematic, easy understandable procedure. Update other documentation (e.g. outdated management plan) to ensure consistency of delegated responsibilities.	C 3
See above	There are uncertainties by the BSB employees who is responsible for what. Furthermore it is difficult to ensure, that all responsibilities are defined and delegated to appropriate employees. Additionally it cannot be excluded, that employees are not aware about responsibilities delegated to them.	See above	
Appointment of EMS Manager	No full-time EMS Manager is currently appointed as defined by AE Reg. 200-1 (Draft). No EMS Manager with defined roles, responsibilities and authority for the establishment, implementation and maintenance of EMS is appointed.	Appoint a specific EMS Manager with defined roles, responsibilities and authority for the establishment, implementation and maintenance of EMS requirements.	C 3
<i>Documentation</i>			
EMS documentation	The documentation of the environmental management system does not exist.	Establish and maintain EMS information in paper or electronic form describing the core elements of the EMS and their interaction.	C 3

ISO-14001-Requirement	Finding	Recommendation	P
Update of existing plans and documents	During development of the EMS the already existing plans should be reviewed regarding inconsistencies and need for update. Outdated plans should be destroyed.	Revise existing documentation if needed.	C 2
Procedures and responsibilities for creating and modifying the EMS documents	Procedures or responsibilities for creating and modifying the EMS documents do not exist.	Establish procedures and responsibilities for creating and modifying the documents required by the ISO 14001 standard.	C 2

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

6.1.3 *Description of the step*

The key target of this step is to develop the framework of the EMS Documentation (e.g. layout of the procedures) and the definition of the key responsibilities.

The definition of responsibilities will be part in detail in later steps of the EMS documentation and especially of "Milestone 6: FGS Media EMS Procedures and SOPs for operational control developed".

At this stage a general overall of responsibilities regarding environmental issues should be established which also includes external parties (e.g. "Bundesvermögensamt") and military units / tenants. This general overview of responsibilities will be updated during the implementation project itself.

6.2 *STEP 2: BSB INTERNAL PROCEDURE « ENVIRONMENTAL OBJECTIVES AND TARGETS » DEVELOPED*

6.2.1 *Requirements according to the ISO 14001*

Please compare to section 5: “milestone 4: EMS Program developed”.

6.2.2 *Recommendations according the Self Assessment*

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
Procedure to develop and control environmental objectives and targets	No procedure to develop and control environmental objectives and targets has been established.	The site should establish an appropriate procedure. The procedure should include statements on performance against objectives and targets.	C 3

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

6.2.3 *Description of the step*

The key target of this step is to develop the procedure of the EMS Documentation regarding the development and control of objectives and targets. This includes to

- develop a draft version of the procedure,
- conduct an interview / workshop with related parties, and
- develop the final procedure based on the results of the workshop.

As part of the development of this procedure it has to be decide to what extend and level of reliability and bindingness the military units and tenants will commit their selves towards the development, implementation and execution of environmental objectives and targets.

This working step is linked to “milestone 4: EMS Program developed”.

6.3 ***STEP 3: BSB INTERNAL EMS PROCEDURE « ENVIRONMENTAL MANAGEMENT PROGRAM » DEVELOPED***

6.3.1 ***Requirements according to the ISO 14001***

Please compare to section 5.

6.3.2 ***Recommendations according to the Self Assessment***

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
No procedure to develop/maintain an environmental program.	Currently the environmental objectives and targets (and linked activities) are developed in connection to the "Army Community of Excellence". However there is not systematic approach how to develop the environmental program for the BSB and BSB including tenants and how to involve all related parties and departments.	A procedure should be developed. This procedure should describe how environmental targets/ objectives and the linked environmental program is developed, updated and controlled.	C 3

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

6.3.3 ***Description of the step***

The key target of this step is to develop the procedure of the EMS Documentation regarding the development and update of the EMS Program. This includes to

- develop a draft version of the procedure,
- conduct an interview / workshop with related parties, and
- develop the final procedure based on the results of the workshop.

The program itself is based on the developed objectives and targets. Hence, both procedures should be harmonized.

The procedure itself will be based on the experience made during the development of the first program as part of milestone 4.

6.4 *STEP 4: BSB INTERNAL EMS PROCEDURE « TRAINING AND AWARENESS»DEVELOPED*

6.4.1 *Requirements according ISO 14001*

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements:

- identify training *needs*,
- ensure that all personnel whose work may create a significant impact upon the environment have *received* appropriate training,
- establish and maintain procedures to make its employees or members, at each relevant function and level *aware* of:
 - the importance of *conformance* with environmental policy and procedures and the requirements of the EMS,
 - *significant environmental impacts*, actual or potential, of their work activities and the environmental benefits of improved personal performance,
 - their *roles and responsibilities* in achieving conformance with the environmental policy, procedures and with the requirements of the EMS including emergency preparedness and response requirements,
 - potential consequences of departure from specified operating procedures, and
- personnel performing the tasks which can cause significant environmental impacts shall be *competent* on the basis of appropriate education, training and/or experience.

6.4.2

Recommendations according to the Self Assessment

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Training, awareness and competence</i>			
Procedure to identify training needs	Existing training procedure (as part of the IDP) to identify training needs is not based on the identified environmental aspects.	Make IDP mandatory for all BSB staff. Integrate environmental aspects in the training procedures to identify the appropriate training needs.	I 2 C 2
Identification of training needs.	Training needs of BSB staff working in different areas have not been identified on a systematic matter. Staff does not receive a basic environmental training except SORT training.	Identify training needs and require that all personnel whose work may create a significant environmental impact should receive appropriate training. Develop the installation environmental training plan as required by AE Reg. 200-1.	C 2
Dependants located at the installations are not trained.	Dependants living at the installation cause a large environmental impact (e.g. waste generation, energy consumption). However the dependants does not receive any environmental training.	Develop measures to ensure, that all dependants receive a basic environmental training.	I 2
Civilians working on the installation (not employed by the 417 th BSB) are not trained.	Civilians working on the installations (not employed by the 417 th BSB but e.g. by DoDDS, AAFES) cause significant environmental impact (e.g. waste generation, energy consumption). However the civilians does not receive any environmental training.	Develop measures to ensure, that all civilians receive a basic environmental training.	I 2

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

6.4.3 *Description of the step*

The key target of this step is to develop the procedure of the EMS Documentation regarding the environmental related trainings. This includes to:

- develop a draft version of the procedure,
- conduct an interview / workshop with related parties, and
- develop the final procedure based on the results of the workshop.

Further requirements defined according ISO 14001 or recommendations based on the Self Assessment are part of “Milestone 7: Environmental related trainings established”.

6.5 ***STEP 5: BSB INTERNAL EMS PROCEDURE « ENVIRONMENTAL DOCUMENT CONTROL » DEVELOPED***

6.5.1 ***Requirements according to the ISO 14001***

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements:

- Establish and maintain procedures for *controlling* all documents required by this standard to ensure: that
 - they can be located,
 - they are periodically reviewed, revised as necessary and approved for adequacy by authorized personnel,
 - the current versions of relevant documents are available at all locations where operations essential to the effective functioning of the EMS are performed,
 - obsolete documents are promptly removed from all points of issue and points of use or otherwise assured against unintended use,
 - any obsolete documents retained for legal and/or knowledge preservation purposes are suitably identified, and
- documentation shall be legible, dated (with dates of revision), readily identifiable, maintained in an orderly manner and retained for a specified period.

6.5.2

Recommendations according to the Self Assessment

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Document control</i>			
Documents relevant for Giebelstadt AAF	Currently all environmental related documents are managed by the owner of the site (Bundeswehr). The BSB holds no own documentation.	It should be defined if and which documents the BSB wants to file in their own responsibility (e.g. as copy) of the Giebelstadt AAF. This could include copies of permits.	I 2
List of all environmental related documents / records	There is no list of all significant documents / records relating to environmental issues available.	A list with all documents / records should be developed (i.e. including subject, date, location, responsible person). -> Annex	C 2
Document Control System	Currently there is no system in place which defines minimum requirements regarding document / record control.	A document / record control should be developed which defines: <ul style="list-style-type: none"> • a consistent numbering system • a periodical review of adequacy of existing procedures • the retention time of documents • the retention of obsolete documentation 	C 3

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

6.5.3

Description of the step

The key target of this step is to develop the procedure of the EMS Documentation regarding the future document control procedure. This includes to

- develop a list of environmental related documents which will be covered under the document control system
- develop a draft version of the procedure,

- conduct an interview / workshop with related parties, and
- develop the final procedure based on the results of the workshop.

The development of the document control system should be integrated in other potential initiatives regarding document control in the BSB (e.g. ARIMS). It has to be defined to what extent parties not under the chain of command of the 417th BSB will commit their selves to implement the document control procedure. Furthermore it has to be taken into account, that environmentally related documents are currently maintained under responsibility of different departments. Due to these circumstances, the implementation of this procedure will affect daily work and the established internal processes of various departments.

The list of related documents which will be part of the system will be developed in parallel (e.g. list of permits) as part of "Milestone 3: Legal requirements defined and established".

6.6 *STEP 6: BSB INTERNAL EMS PROCEDURE « ENVIRONMENTAL RECORD CONTROL»DEVELOPED*

6.6.1 *Requirements according to the ISO 14001*

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements:

- Records shall:
 - be maintained, as appropriate to the EMS and organization, to demonstrate conformance to the requirements of ISO 14001,
 - include training records, and
 - include the results of audits and reviews.
- establish and maintain procedures for the identification, maintenance and disposition of environmental records, and
- environmental records shall be legible, identifiable, and traceable to the activity, product, or service involved, be stored and maintained so that they are readily retrievable and protected against damage, deterioration, or loss and have established and recorded retention times,

6.6.2 *Recommendation according to the Self Assessment*

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
Procedures for environmental records	Procedures for the identification, maintenance and disposition of environmental records do not exist.	Establish procedures for the identification, maintenance and disposition of environmental records. This should be part of the document control system.	C 2

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

6.6.3

Description of the step

The key target of this step is to develop the procedure of the EMS Documentation regarding the control of environmental related records. This includes to

- develop a list of environmental related documents which will be under control of this procedure,
- develop a draft version of the procedure,
- conduct an interview / workshop with related parties, and
- develop the final procedure based on the results of the workshop.

The development of the record control system should be conducted in parallel with the document control system (compare section 6.5: “Step 5: BSB internal EMS Procedure « Environmental Document Control developed”). As the document control procedure it also has to be defined for the record control to what extent parties not under the chain of command of the 417th BSB would commit their selves to implement this procedure.

The list of related records which will be part of the system will be developed in parallel (e.g. list of monitoring reports) as part of “Milestone 3: Legal requirements defined and established”.

6.7 *STEP 7: BSB INTERNAL PROCEDURE « ENVIRONMENTAL COMMUNICATION » DEVELOPED*

6.7.1 *Requirements according to the ISO 14001*

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements:

- Establish and maintain procedures for *internal communications* between the various levels and functions of the organization regarding its environmental aspects and EMS,
- Establish and maintain procedures for receiving, documenting and *responding* to relevant communications from *external interested parties* regarding its environmental aspects and EMS, and
- Consider processes for *external communication* on its *significant* environmental aspects and record its decision.

6.7.2 *Recommendations according to the Self Assessment*

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Communication</i>			
Procedure for internal communications	Procedures for internal communications regarding environmental issues do not exist.	Establish procedures for internal communications between the various levels and functions of the BSB regarding its environmental aspects and EMS.	C 2
Communication of EMS to external parties	It is not decided how to communicate ad-hoc or regularly about the EMS and its progress to external parties	Define communication targets and process regarding EMS / environmental performance to external parties.	C 1

ISO-14001-Requirement	Finding	Recommendation	P
<i>Communication</i>			
Procedure for internal communication	Currently it is not ensured, that projects with environmental impacts are planned and executed with involvement of all relevant parties.	Define process regarding information needs for relevant projects. This should include projects in responsibility of the BSB itself as projects planned and managed by other US Army institutions (e.g. 98 ASG) and executed on installation of the 417 th BSB.	I 2
P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)			

6.7.3 *Description of this step*

The key target of this step is to develop the procedure of the EMS Documentation regarding the communication of environmental issues. This includes to:

- develop a draft version of the procedure,
- conduct an interview / workshop with related parties, and
- develop the final procedure based on the results of the workshop.

Currently the 417th BSB has already established various internal processes of communication regarding environmental issues. As part of the development of this procedure the already established procedures have to be taken into account. The focus of the procedure should be on external communication regarding environmental aspects and on internal communication.

Specific focus should be taken on the internal communication between BSB internal and external departments regarding the development, technical layout and implementation of projects, which can have significant environmental aspects. These are e.g. larger construction projects by the BSB or other parties and change of training attitudes of the military units.

6.8 STEP 8: BSB INTERNAL EMS PROCEDURE "ENVIRONMENTAL MONITORING AND MEASUREMENT" DEVELOPED

6.8.1 Requirements according to the ISO 14001

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements:

- establish and maintain documented *procedures to monitor and measure* on a regular basis the key characteristics of its operations and activities that can have a significant impact on the environment,
- record information to track:
 - environmental performance, relevant operational controls and conformance with *objectives and targets*,
- establish and maintain a documented procedure for periodically *evaluating compliance* with relevant environmental legislation and regulations, and
- *calibrate and maintain monitoring equipment* and retain records of this process according to the organization's procedures.

6.8.2 Recommendations according to the Self Assessment

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Environmental Monitoring and Measurement</i>			
Monitoring and measurement (legally required)	Currently only wastewater quality is continuously monitored as legally required parameter. However the threshold values are not known and it is not ensured that all necessary parameters are controlled.	Based on the review of legal compliance (see chapter 3) the legally required monitoring needs should be identified. Monitoring requirements should also be based on the impact/aspect analysis. Current monitoring programs should be adapted.	C 3

ISO-14001-Requirement	Finding	Recommendation	P
<i>Environmental Monitoring and Measurement</i>			
Monitoring and measurement (performance improvement)	Environmental data is mainly used for statistic purposes but not for systematic evaluation of opportunities for performance improvement (e.g. water consumption).	The existing data should be used to develop a systematic approach to monitor the environmental performance (e.g. identify significant consumers)	C 1, I 2
Procedures for environmental records	Procedures for the identification, maintenance and disposition of environmental records do not exist.	Establish procedures for the identification, maintenance and disposition of environmental records. This should be part of the document control system.	C 2
P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)			

6.8.3

Description of the step

The key target of this step is to develop the procedure of the EMS Documentation regarding the monitoring and measurement. This includes to

- develop a draft version of the procedure,
- conduct an interview / workshop with related parties, and
- develop the final procedure based on the results of the workshop.

The development of the procedure will be linked with “Milestone 3 – Legal requirements defined and established”. During Milestone 3, the requirements for monitoring and measurement due to legal requirements (e.g. permits) will be evaluated. The procedure will define responsibilities and tasks to ensure that these requirements are met.

Further monitoring of environmental issues will be necessary to monitor development of the environmental performance as established in the environmental program. This will cover additional topics (e.g. consumption of energy). The procedure will take into account these internal duties.

The management of related records will be part of “Step 5: BSB internal EMS Procedure « Environmental Record Control”.

The monitoring and control of environmental performance is key for the annual management review to show the achieved progress. Therefore environmental key performance indicators have to be established for all

relevant processes in order to ensure a regular monitoring. The monitoring parameters will be related to legal requirements (compare to milestone 3) and targets defined in the environmental program.

6.9 *STEP 9: BSB INTERNAL PROCEDURE "CHECKING AND CORRECTIVE ACTION / INTERNAL AUDITS" DEVELOPED*

6.9.1 *Recommendations according to the ISO 14001*

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements regarding checking and corrective actions :

- establish and maintain procedures for defining *responsibility and authority* for handling and investigating non-conformance, taking action to mitigate any impacts caused, initiating and completing corrective and preventive action,
- any corrective or preventive action taken to eliminate the causes of actual and potential non-conformances shall be *appropriate to the magnitude of problems* and commensurate with the environmental impact encountered, and
- implement and record any changes in the documented procedures resulting from corrective and preventive action.

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements regarding Environmental Management System Audit:

- establish and maintain (a) program(s) and procedures for periodic EMS audits to be carried out in order to determine whether or not the EMS *conforms to planned arrangements*, including ISO14001 requirements and has been properly *implemented* and maintained,
- the audit program and schedule shall be based on the environmental importance of the activity and the results of previous audits,
- for conducting audits audit procedures shall cover:
 - audit scope, frequency, methodologies, responsibilities and requirements, and reporting results, and
 - establish and maintain procedures to *provide information* on the results of audits *to management*.

6.9.2 *Recommendations according to the Self Assessment*

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Checking and corrective actions</i>			
No EMS Audits	The current internal environmental audits do not cover the ISO 14001 elements.	Establish a process to ensure annual internal EMS audits. When developing the EMS audit process, identify links to already existing audit programs to avoid double work.	C 3
Internal EMS Auditors	The current internal auditors are not completely training regarding EMS audits.	Ensure further ISO 14001 training for internal EMS auditors.	C 2

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

6.9.3 *Description of the step*

The key target of this step is to develop the procedure of the EMS Documentation. This includes to

- develop a draft version of the procedure,
- conduct an interview / workshop with related parties, and
- develop the final procedure based on the results of the workshop.

The 417th BSB has already established different internal processes regarding checking and corrective actions for environmental issues (compliance focused). However, internal EMS audits are currently not established. The procedure has to identify the relations between the established programs and to define the different responsibilities. Furthermore the BSB has to establish an internal EMS Audit Approach (e.g. as extension of the IAP).

The training of EMS Auditors has to be conducted by the end of 2005. This is covered under "Milestone 7: Environmental related trainings established".

6.10 *STEP 10: BSB INTERNAL EMS PROCEDURE "EMERGENCY PREPAREDNESS AND RESPONSE" DEVELOPED*

6.10.1 *Requirements according to the ISO 14001*

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements:

- establish and maintain procedures to identify potential for, and to respond to, *accidents and emergency situations*, and for preventing and mitigating the environmental impacts that may be associated with them,
- periodically *test* the emergency preparedness and response procedures, where practicable, and
- *review and revise*, where necessary, the emergency preparedness and response procedures, in particular, after the occurrence of accidents or emergency situations.

6.10.2 *Recommendations according to the Self Assessment*

During the Self Assessment the following issues were identified:

ISO-14001-Requirement	Finding	Recommendation	P
<i>Emergency preparedness and response</i>			
Procedures to identify potential for, and to respond to accidents and emergency situations	The SCCP is focused on spill prevention and contains procedures to identify potential for, and to respond to this kind of, environmental incidents, accidents and emergency situations. However it does not evaluate other emergency situations as e.g. fire, explosion of road tankers, helicopter accident...)	It should be evaluated which kind of emergency situations can occur at the BSB and ensure, that procedures for all kind of emergency situations do exist.	C 2
Update of SCCP	The SCCP is dated February 2002. The regular annual updating for installation that store HS was not conducted.	Ensure, that the SCCP is regular updated.	I 2

ISO-14001-Requirement	Finding	Recommendation	P
<i>Emergency preparedness and response</i>			
Distribution / availability of the SCCP	The SCCP is not available at each facility where hazardous materials / hazardous waste is used, generated, transported, stored, handled or disposed of and as additionally defined in the SCCP.	Ensure that SCCP is available at all relevant locations.	I 2
Training according to the SCCP	Personnel responsible to implement the SCCP has not been trained. Members of the Spill Response Team should be trained annually. SCCP is e.g. not known by all relevant heads (e.g. AST Commander Würzburg, DOL, Safety Officer).	Ensure SCCP Training	I 1
P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)			

6.10.3 *Description of the step*

The key target of this step is to develop the procedure of the EMS Documentation regarding the emergency preparedness and readiness. This includes to

- develop a draft version of the procedure,
- conduct an interview / workshop with related parties, and
- develop the final procedure based on the results of the workshop.

The 417th BSB has already established different documents, which are related to emergency preparedness and readiness. This is especially the SCCP, which is focused on spill prevention. Based on the results of the evaluation of environmental impacts and aspects it has to be evaluated if all significant impacts are covered by already established plan or if further plans have to be developed.

The working steps of the EMS Implementation will be focused on development of the EMS procedure. Further activities regarding update, implementation of the SCCP or further plans and of related training are currently not covered under this implementation. However further activities can be integrated as part of the EMS Implementation when more detailed information are available.

6.11 **STEP 11: BSB INTERNAL EMS PROCEDURE "ENVIRONMENTAL
MANAGEMENT REVIEW" DEVELOPED**

6.11.1 **Requirements according to the ISO 14001**

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements:

- environmental management reviews conducted by *top management* at defined intervals in the light of EMS audit results, changing circumstances and the commitment, to continual improvement,
- documented review of the EMS to ensure its continuing suitability, adequacy and effectiveness, addressing in particular the possible need for changes to environmental policy, objectives & targets and other elements of the EMS, and
- ensure that the necessary information is collected to allow this evaluation.

6.11.2 **Recommendations according to the Self Assessment**

During the Self Assessment the following issue was identified:

ISO-14001-Requirement	Finding	Recommendation	P
Management reviews			
Documented management reviews of the EMS	Documented management reviews of the EMS are not conducted.	Conduct documented review of the EMS to ensure its continuing suitability, adequacy and effectiveness, addressing in particular the possible need for changes of environmental policy, objectives & targets and other elements of the EMS.	C 3

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

6.11.3 *Description of the step*

The key target of this step is to develop the procedure of the EMS Documentation regarding the annual management review of the EMS. This includes to

- develop a draft version of the procedure,
- conduct an interview / workshop with related parties, and
- develop the final procedure based on the results of the workshop.

As the BSB has implemented the concept of ACOE and it is already indicated to integrate the environmental program in the concept of ACOE, it also should be taken into account to integrate the EMS management review into the ACOE activities.

6.12 ***STEP 12: BSB EXTERNAL PROCESSES ARE INTEGRATED IN THE EMS PROCEDURES***

6.12.1 ***Requirements according to the ISO 14001***

The ISO 14001 requires, that the scope of the EMS has to be defined. This means, that all operations, which are part of the EMS, have to be an integral part of the EMS.

Regarding the EMS procedures it has to be specified, which responsibilities and duties lies with the 417th BSB and which with the military units / tenants. Furthermore it has to be specified to what extent these external bodies, which are not under the chain of command by the BSB Commander, will give tasks, responsibilities and control to the BSB or will commit their selves to fulfill these duties.

6.12.2 ***Requirements according to the Self Assessment***

The Self Assessment has not identified specific recommendations according the scope of the EMS.

6.12.3 ***Description of the step***

As part of this working step, each EMS procedure, which was developed for the internal 417th BSB processes, will be evaluated regarding the appropriateness for the various external bodies. Therefore key persons will be defined and with this team workshops will be conducted to discuss and extend the procedure to the needs of the external bodies.

As the scope of the procedure and related workshops are currently not finally decided the implementation plan will be adopted regarding this step at a later stage.

MILESTONE 6: FGS MEDIA PROCEDURES AND SOPS FOR OPERATIONAL CONTROL DEVELOPED

The detailed list of steps, the related activities with estimations of time resources and responsibilities of related parties are documented in the Excel-Sheet, which is part of the Annex.

The following link opens this Excel-Sheet:

[Implementation Plan - Milestone 6: FGS Media Procedures and SOPS for Operation Control developed](#)

7.1

STEP 1 – 10: FGS MEDIA EMS PROCEDURES DEVELOPED

7.1.1

Requirements according to the ISO 14001

Regarding the ISO 14001 standard, the organization has to fulfill the following requirements:

- *identify* operations and activities that are associated with identified significant environmental aspects in line with the policy, objectives and targets,
- establish and maintain *documented procedures, with operating criteria*, to cover situations where their absence could lead to deviations from the environmental policy, objectives and targets,
- establish and maintain procedures related to the identifiable significant environmental aspects of *goods and services* used by the organization, and
- *communicate* relevant procedures and requirements to suppliers and contractors.

7.1.2

Recommendations according to the Self Assessment

ISO-14001-Requirement	Finding	Recommendation	P
<i>Operational control</i>			
Specific procedures	BSB wide specific guidelines management of e.g. hazardous substances and water endangering substances, air emission control, water and wastewater management have not been defined.	BSB wide procedures should identify key responsibilities to manage the relevant aspects (see section 4.6).	C 3

P = Priority (1 = low, 2 = medium, 3 = high, C = Certification, L = Legal, I = Improvement)

7.1.3

Description of the step

As part of the documentation of an EMS it is recommended, that procedure for the different and relevant FGS Media are developed. These procedures are defining the related responsibilities and duties to ensure the appropriate management of the different topics. This includes to define the tasks and related responsibilities of BSB departments which serve as service provider (e.g. wastewater management) and of the departments, military units and tenants, which are the internal clients of the service providers (e.g. generators of wastewater).

The procedures should be focused in the first step on the 417th BSB internal processes. This means that the duties of the BSB as a service provider and of BSB-owned processes as an internal client / service consumer are described.

Based on the results of the Self Assessment procedures for the following FGS Media are expected to be developed:

1. Air Emissions
2. Drinking Water Management
3. Wastewater Management
4. Hazardous Material Management
5. Hazardous Waste Management
6. Solid Waste Management
7. Medical Waste Management
8. Noise Management

9. Asbestos Management

10. Soil & Groundwater Management

For most of the FGS Media, internal processes are already well established. These have to be taken into account in order to ensure, that the procedures meets the BSB needs. The focus of the procedure should be to summarize the already established processes, develop missing activities and summarize the key duties / responsibilities which are designated to specific people.

The development of the different BSB – internal procedures includes to

- develop a draft version of the procedure,
- conduct an interview / workshop with related parties for each procedure, and
- develop the final procedures based on the results of the workshops.

7.2 *STEP 11: FGS MEDIA PROCEDURES FOR MILITARY UNITS AND TENANTS DEVELOPED*

7.2.1 *Requirements according to the ISO 14001*

The ISO 14001 requires, that the EMS and related written procedures have to take into account all processes, which are part of the EMS. This means, that the processes of the military units / tenants and the relationships between the BSB and the military units / bodies have to be specified in the procedures.

7.2.2 *Recommendations according to the Self Assessment*

Please compare to section 7.1.2.

7.2.3 *Description of the step*

In this step, the FGS Media procedures will be expanded to the external BSB processes of the military units / tenants. As part of this step it has to be defined, to what extent the BSB defines requirements / duties of the military units / tenants. This has to be discussed between the BSB and the related bodies.

The expansion of the already established procedure again is based on discussions during interviews / workshops with the most relevant bodies as described in step 7.1.3.

7.3 *STEP 12: SOPs, INTERNAL PROCEDURE, SUPPORTING DOCUMENTS
ESTABLISHED FOR ALL SIGNIFICANT ASPECTS*

7.3.1 *Requirements according to the ISO 14001*

The development of SOPs and further supporting documents is part of the operational control, which is required by the ISO 14001 (compare to section 7.1.1).

7.3.2 *Recommendations according to the Self Assessment*

As part of the Self Assessment further recommendations were given related to the different FGS Medias. These recommendations are e.g. related to the update of existing documentation/plan, the integration of different plans, trainings of staff and operational activities (e.g. storage conditions).

During the EMS Implementation these given recommendation should be taken into account and corrective actions should be initiated.

As this Implementation Plan is focused on the EMS, it does not cover all recommended activities to improve the “operational performance” of the BSB and their designated military units / tenants.

7.3.3 *Description of the step*

As part of the development of the procedures, existing support documents and SOPs, which are already established by the different bodies, will be identified.

Based on this evaluation, it will be developed which further documents should be established to ensure operational control on the shop-floor level (e.g. by SOP) and to make implementation of procedure more easier (e.g. by supporting documents and forms).

In general it is currently planned that the development of the SOPs will be conducted by the related body (e.g. military unit, BSB department) while the EMS Implementation Plan will give support / guidance on an as-needed basis. The supporting documents / forms as part of the procedures will be developed by the EMS Implementation Team with support of the related bodies.

The development of the different documents is currently not taken into account in detail as part of the EMS Implementation Plan as it is currently unclear which documents have to be developed for which body. The Implementation Plan will be updated in detail regarding this topic in a later stage.

Furthermore the self assessment identified issues of operational performance. The implementation of these recommendations is also not part of the EMS Implementation Plan at this time.

MILESTONE 7: ENVIRONMENTAL RELATED TRAININGS ESTABLISHED

The detailed list of steps, the related activities with estimations of time resources and responsibilities of related parties are documented in the Excel-Sheet, which is part of the Annex.

The following link opens this Excel-Sheet:

[Implementation Plan - Milestone 7: Environmental related trainings established](#)

8.1 STEP 1: ENVIRONMENTAL RELATED TRAINING PLANS ARE DEVELOPED (BSB INTERNAL)**8.1.1 Requirements according to the ISO 14001**

Please compare to section 6.4.4.

8.1.2 Requirements according to the Self Assessment

Please compare to section 6.4.4.

8.1.3 Description of the step

As part of this step the training requirements regarding environmental issues for BSB internal staff will be developed and documented (e.g. as table).

This will be based on results of the review of the legal requirements (milestone 3), results of the impact & aspect evaluation and further discussion with related parties.

8.2 ***STEP 2: ALL NECESSARY ENVIRONMENTAL RELATED TRAININGS CONDUCTED
(BSB INTERNAL)***

8.2.1 ***Requirements according to the ISO 14001***

Please compare to section 6.4.4.

8.2.2 ***Recommendations according to the Self Assessment***

Please compare to section 6.4.4.

8.2.3 ***Description of the step***

The focus of this step is on the EMS Awareness training of all BSB internal staff. The rollout concept and training materials will be developed. Furthermore the EMS Team will hold trainings.

Currently it is expected that seven training sessions with BSB departments will be held.

Environmental related trainings due to operational processes (e.g. waste management) are not covered as part of the EMS Implementation Plan. However it should be ensured, that all relevant trainings are conducted by end 2009. Further detailed activities will be developed at a future stage.

8.3 ***STEP 3: ENVIRONMENTAL RELATED TRAINING PLANS ARE DEVELOPED (BSB EXTERNAL)***

8.3.1 ***Requirements according to ISO 14001***

Please compare to section 6.4.4.

8.3.2 ***Requirements according to the Self Assessment***

Please compare to section 6.4.4.

8.3.3 ***Description of the step***

As part of this step the training requirements regarding environmental issues for BSB external staff will be developed and documented (e.g. as table) in close cooperation with the related bodies.

This will be based on results of the review of the legal requirements (milestone 3), results of the impact & aspect evaluation and further discussion with related bodies.

In general it will be responsibility of the related bodies to ensure that their staff receives the necessary trainings. But it will be duty of the BSB to integrate all staff (including e.g. German civilians, soldiers, dependants) in the EMS Awareness trainings.

8.4 ***STEP 4: ALL NECESSARY ENVIRONMENTAL RELATED TRAININGS CONDUCTED (BSB EXTERNAL)***

8.4.1 ***Requirements according to ISO 14001***

Please compare to section 6.4.4: “Step 4: BSB internal EMS Procedures - Training and Awareness - developed”.

8.4.2 ***Recommendations according to the Self Assessment***

Please compare to section 6.4.4: “Step 4: BSB internal EMS Procedures - Training and Awareness - developed”.

8.4.3 ***Description of the step***

The focus of this step is on the EMS Awareness training of all BSB external staff. The rollout concept and training materials will be developed (e.g. computer – based training). Furthermore the EMS Team will hold trainings.

As the rollout concept is currently not defined the expected resources for the related activities cannot be determined.

Environmental related trainings due to operational processes (e.g. waste management) are not covered as part of the EMS Implementation Plan and have to be conducted in responsibility of the related bodies. However it should be ensured, that all relevant trainings are conducted by end 2009. Further detailed activities will be developed at a later stage.

CONTENTS

ANNEXES

Annex A: Detailed time schedule

List of Abbreviations

The following Excel- Spreadsheets shows various abbreviations which are described below.

The column *status* gives information on the current status within the implementation. Abbreviations are

p – planned

i – initiated

c – completed

The spreadsheets M 1 – M7 show columns with definition of roles and responsibilities. Abbreviations in column *role* are

D – Decide

E – Execute

P – Participate

ANNEX A

Detailed time schedule

(Implementation Plan Final.xls)

EMS Implementation Plan
417th BSB

Overview

Mile-stone	Step	Start date	End date	Status
Milestone 1: EMS Framework defined		Mrz. 04	Okt. 04	i
Step 1:	Step 1: Mission focus established	Mrz. 04	Okt. 04	i
Step 2:	Step 2: EMS Implementation Team nominated	Apr. 04	Sep. 04	i
Milestone 2: Aspects / Impacts evaluated		Jan. 04	Dez. 04	i
Step 3:	Step 3: EMS Procedure "Environmental Aspects & Impacts" developed	Feb. 04	Jun. 04	i
Step 4:	Step 1: Environmental Aspects / Impacts evaluated - BSB internal processes	Mrz. 04	Jul. 04	i
Step 5:	Step 2: Environmental Aspects / Impacts evaluated - BSB external processes	Jan. 04	Dez. 04	i
Milestone 3: Legal requirements defined and established		Apr. 04	Dez. 04	p
Step 1:	Step 1: All applicable permits / notifications identified and updated	Apr. 04	Dez. 04	p
Step 2:	Step 2: All key legal requirements identified and documented	Apr. 04	Dez. 04	p
Step 3:	Step 3: Procedure "Identification of Legal and other Requirements" developed	Jul. 04	Jul. 04	p
Milestone 4: EMS Program developed		Jul. 04	Mrz. 05	p
Step 1:	Step 1: Environmental Policy reviewed and approved	Jul. 04	Sep. 04	p
Step 2:	Step 2: EMS Program and objectives & targets (BSB internal) developed	Jul. 04	Sep. 04	p
Step 3:	Step 3: EMS Program and objectives and targets (BSB external) developed	Dez. 04	Mrz. 05	p
Milestone 5: EMS Documentation and responsibilities developed		Mai. 04	Jul. 05	i
Step 1:	Step 1: Framework of EMS Documentation developed	Mai. 04	Jun. 04	i
Step 2:	Step 2: BSB internal EMS Procedure "Environmental Objectives and Targets" developed	Jun. 04	Aug. 04	p
Step 3:	Step 3: BSB internal EMS Procedure "Environmental Management Program" developed	Jun. 04	Aug. 04	p
Step 4:	Step 4: BSB internal EMS Procedure "Training and Awareness" developed	Jun. 04	Aug. 04	p
Step 5:	Step 5: BSB internal EMS Procedure "Environmental Document Control" developed	Aug. 04	Sep. 04	p
Step 6:	Step 6: BSB internal EMS Procedure "Environmental Record Control" developed	Aug. 04	Sep. 04	p
Step 7:	Step 7: BSB internal EMS Procedure "Environmental Communication" developed	Sep. 04	Nov. 04	p
Step 8:	Step 8: BSB internal EMS Procedure "Environmental Monitoring and Measurement" developed	Sep. 04	Nov. 04	p
Step 9:	Step 9: BSB internal EMS Procedure "Checking and Correction Actions / Internal EMS Audits" developed	Nov. 04	Dez. 04	p
Step 10:	Step 10: BSB internal EMS Procedure "Environmental Management Review" developed	Nov. 04	Dez. 04	p
Step 11:	Step 11: BSB external processes (military units / tenants) are integrated in the EMS procedures	Jan. 05	Jul. 05	p
Milestone 6: FGS Media EMS Procedures and SOPs for Operational Control developed		Sep. 04	Jul. 05	p
Step 1:	Step 1: FGS Media EMS procedure "Air Emissions" developed	Sep. 04	Nov. 04	p
Step 2:	Step 2: FGS Media EMS procedure "Drinking Water Management" developed	Sep. 04	Nov. 04	p
Step 3:	Step 3: FGS Media EMS procedure "Waste Water Management" developed	Sep. 04	Nov. 04	p
Step 4:	Step 4: FGS Media EMS procedure "Hazardous Materials Management" developed	Nov. 04	Jan. 05	p
Step 5:	Step 5: FGS Media EMS procedure "Hazardous Waste Management" developed	Nov. 04	Jan. 05	p
Step 6:	Step 6: FGS Media EMS procedure "Solid Waste Management" developed	Nov. 04	Jan. 05	p
Step 7:	Step 7: FGS Media EMS procedure "Medical Waste Management" developed	Jan. 05	Mrz. 05	p
Step 8:	Step 8: FGS Media EMS procedure "Noise Management" developed	Jan. 05	Mrz. 05	p
Step 9:	Step 9: FGS Media EMS procedure "Asbestos Management" developed	Jan. 05	Mrz. 05	p
Step 10:	Step 10: FGS Media EMS procedure "Soil & Groundwater Contamination" developed	Jan. 05	Mrz. 05	p
Step 11:	Step 11: FGS Media EMS procedures for military units and tenants developed	Feb. 05	Jul. 05	p
Step 12:	Step 12: SOPs, internal procedures established for all significant aspects	Jul. 04	Sep. 05	p
Milestone 7: EMS related trainings established		Jul. 04	Dez. 05	p
Step 1:	Step 1: Environmental related training plans developed (BSB internal)	Jul. 04	Dez. 04	p
Step 2:	Step 2: All necessary environmental related trainings conducted (BSB internal)	Jul. 04	Dez. 05	p
Step 3:	Step 3: Environmental related training plans developed (BSB external)	Jan. 05	Jul. 05	p
Step 4:	Step 4: All necessary environmental related trainings conducted (BSB external)	Jul. 04	Dez. 05	p

TOTAL Resources

EMS Implementation Plan
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Milestone 1: EMS Framework defined

Step	Activity	Start date	End date	Status	CDR	XO - EMS Manager	EMS Project Manager	External Consultant	Quality Managem.	Works Council	Safety Engineer	AST Comm- anders	DPW	DPW-B&G	DPW-Utility & Fe's	DPW-EMO	DPW-EP&S	DPW-ERMD	DOL	DCA	Housing	PAO	98th ASG	Military Units	Tenants
					Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role
Step 1: Mission focus established		Mrz. 04	Okt. 04	i																					
	Develop inventory of all relevant units / organizations	Mrz. 04		i			E	E																	
	Develop short characteristic of all relevant units / organizations			p			E	E																	
	Identify all key units / organizations and their role in the EMS			i			E	E																	
	Organize and conduct interviews with all key units / organizations			p			E	E															P	P	P
	Finally agree about integration of units / organizations in the EMS		Okt. 04	p	D	D	D	D															D	D	D
Step 2: EMS Implementation Team nominated		Apr. 04	Sep. 04	i																					
	Identify / nominate BSB EMS Manager	Apr. 04		c	D	D	E									E									
	Identify / nominate BSB internal EMS Team			i	D	D	E						D						D	D	D	D			
	Identify / nominate BSB external EMS Team		Sep. 04	i	D	D	E																D	D	D

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Milestone 2: Aspects / Impacts evaluated

Step	Activity	Start date	End date	Status	CDR	XO - EMS Manager	EMS Project Manager	External Consultant	Quality Managem.	Works Council	Safety Engineer	AST Comm- anders	DPW	DPW-B&G	DPW-Utility & Fe's	DPW-EMO	DPW-EP&S	DPW- ERMD	DOL	DCA	Housing	PAO	98th ASG	Military Units	Tenants
					Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role
Step 1: Environmental Aspects / Impacts evaluated - BSB internal processes		Mrz. 04	Jul. 04	i																					
	Revise list of processes / activities	Mrz. 04		c			E	E																	
	Make first desktop ranking of processes by EMO			c			E	E																	
	Develop work packages and timeline to evaluate aspects / impacts			c			E	E																	
	Prepare training			c			E	E																	
	Conduct training for BSB internal EMS Team for aspect & impact evaluation			c		P	E	E	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
	Evaluate and document general BSB processes			i			E	E			E	E	E		E										
	Evaluate and document BSB Environmental processes			i			E	E								E									
	Evaluate and document BSB Facilities processes			i			E	E							E				E						
	Evaluate and document BSB Buildings & Grounds processes			i			E	E						E	E										
	Evaluate and document BSB Recreation processes			i			E	E												E					
	Evaluate and document BSB Living processes			i			E	E						E							E				
	Accumulate and review of working results			i		E	E	E																	
	Develop final Aspect / Impact Evaluation list of BSB internal processes		Jul. 04	i	D	D	E	E			D		D	D	D	D	D	D	D	D	D	D			
Step 2: Environmental Aspects / Impacts evaluated - BSB external processes		Jan. 04	Dez. 04	i																					
	Revise list of processes / activities	Jan. 04		i			E	E																	
	Develop work packages and timeline to evaluate aspects / impacts			i			E	E																	
	Prepare two trainings			i			E	E																	
	Conduct two training for BSB external EMS Team for aspect & impact evaluation			i			E	E														P	P	P	
	Evaluate and document BSB Support processes			i			E	E															E		E
	Evaluate and document BSB Mission / Military Units processes			p			E	E																E	
	Accumulate and review of working results			p			E	E																	
	Develop final Aspect / Impact Evaluation list of BSB internal processes		Dez. 04	p			E	E															D	D	D
Step 3: EMS Procedure "Environmental Aspects & Impacts" developed		Feb. 04	Jun. 04	i																					
	Check different evaluation approaches and identify the best one	Feb. 04		c			P	E																	
	Define level and no. of staff being involved in evaluation process			c			E	E																	
	Agree with IMA-E about evaluation approach and documentation			c			E	E																	
	Develop draft version and prepare workshop			c			E	E																	
	Review draft version by participants			i		E					E		E			E									
	Conduct workshop to discuss procedure			p		P	E	E			P		P			P									
	Develop final version of procedure			p			E	E																	
	Review and approval of final procedure		Jun. 04	p	D	D					E		E			E									

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Milestone 3: Legal requirements defined and

Step	Activity	Start date	End date	Status	CDR	XO - EMS Manager	EMS Project Manager	External Consultant	Quality Managem.	Works Council	Safety Engineer	AST Comm- anders	DPW	DPW-B&G	DPW-Utility & Fe's	DPW-EMO	DPW-EP&S	DPW-ERMD	DOL	DCA	Housing	PAO	98th ASG	Military Units	Tenants
					Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role
Step 1: All applicable permits / notifications identified and updated					Apr. 04	Dez. 04	p																		
	Contact Staatl. Hochbauamt and receive copies of all permits / notifications available	Apr. 04		p			E	P			P		P	P	P	P			P				P	P	P
	Distribute all permits / notifications to the relevant departments			p			E																		
	Review permits / notifications regarding status			p			P	P			E			E	E	E			E				E	E	E
	Check if permits / notifications are available for all (new) facilities			p			P	P			E			E	E	E			E				E	E	E
	Check if permits / notifications are up-to-date (e.g. in facilities are still in place/expanded...)			p			P	P			E			E	E	E			E				E	E	E
	Apply for new permits / notifications were applicable		Dez. 04	p			P				E			E	E	E			E				E	E	E
Step 2: All key legal requirements identified and documented					Apr. 04	Dez. 04	p																		
	Summarize key requirements defined in the permit	Apr. 04		p			E	E			P			P	P	P			P				P	P	P
	Identify key legal and FGS requirements related to the BSB internal and external processes			p			E	E			P			P	P	P			P				P	P	P
	Develop and document list of key legal and GFGS requirements			p			E	E			P			P	P	P			P				P	P	P
	Develop and document list of all permits / notifications related duties and responsibilities		Dez. 04	p			E	E			P			P	P	P			P				P	P	P
Step 3: Procedure "Identification of Legal and other Requirements" developed					Jul. 04	Jul. 04	p																		
	Develop draft version and prepare workshop	Jul. 04		p			E	E																	
	Review draft version by participants			p					P		P		P		P	P			P						
	Conduct workshop to discuss procedure			p			E	E	P		P		P		P	P			P						
	Develop final version of procedure			p			E	E																	
	Review and approval of final procedure		Jul. 04	p			D		P		P		P		P	P			P						

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Milestone 4: EMS Program developed

Step	Activity	Start date	End date	Status	CDR	XO - EMS Manager	EMS Project Manager	External Consultant	Quality Managem.	Works Council	Safety Engineer	AST Comm- anders	DPW	DPW-B&G	DPW-Utility & Fe' s	DPW-EMO	DPW-EP&S	DPW- ERMD	DOL	DCA	Housing	PAO	98th ASG	Military Units	Tenants
					Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role
Step 1: Environmental Policy reviewed and approved		Jul. 04	Sep. 04	p																					
	Check if current Environmental Policy is still sufficient (based on results on impact & aspect evaluation and integration of military units & organizations)	Jul. 04		p			E	E																	
	Identify how the EMS Program will be integrated in the "Community of Excellence" approach			p			E	E	E																
	Develop updated version of the Environmental Policy			p		P	E	E	P																
	Approve new version of Environmental Policy		Sep. 04	p	D	D																	P	P	P
Step 2: EMS Program and objectives & targets (BSB internal) developed		Jul. 04	Sep. 04	p																					
	Review list of significant aspects & impacts, targets of "Community of Excellence and other topics of the BSB	Jul. 04		p			E	E																	
	Develop first draft of EMS Program			p		P	E	E																	
	Based on the EMS Program develop first draft of objectives and targets			p		P	E	E	P																
	Conduct workshop to discuss draft versions			p		P	E	E	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
	Review, update and finally approve EMS Program , objectives and targets (BSB internal)		Sep. 04	p	D	D	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
Step 3: EMS Program and objectives and targets (BSB external) developed		Dez. 04	Mrz. 05	p																					
	Review list of significant aspects & impacts, mission targets and other topics of the tenants	Dez. 04		p			E	E																	
	Develop first draft of EMS Program			p			E	E																	
	Based on the EMS Program develop first draft of objectives and targets			p		P	E	E	P																
	Conduct workshop to discuss draft versions			p		P	E	E	P		P		P										P	P	P
	Review, update and finally approve EMS Program (BSB external)			p			P	P															E, D	E, D	E, D
	Integrate BSB internal and external EMS program, objectives and targets		Mrz. 05	p	D	D	E	E																	

EMS Implementation Plan
417th BSB

Milestone 5: EMS Documentation and

Step	Activity	Start date	End date	Status	CDR	XO - EMS Manager	EMS Project Manager	External Consultant	Quality Managem.	Works Council	Safety Engineer	AST Comm- anders	DPW	DPW-B&G	DPW-Utility & Fe's	DPW-EMO	DPW-EP&S	DPW-ERMD	DOL	DCA	Housing	PAO	98th ASG	Military Units	Tenants
					Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role
Step 1: Framework of EMS Documentation developed		May 04	Jun. 04	I																					
	Define layout of documentation	May 04		I	D	D	E	E	P	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
	Define content and scope of documentation		Jun. 04	I	D	D	E	E	P		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
	Identify key responsibilities for environmental issues (BSB internal)	May 04		P			E	E	P	P	P		P	P	P	P	P	P	P	P	P				
	Define key responsibilities and e.g. organizational chart (BSB internal)			I	D	D	E	E	P	P	P		P	P	P	P	P	P	P	P	P				
	Develop table of EMS organizational responsibilities			P			E	E																	
	Identify key responsibilities for environmental issues (BSB external)			P			E	E															E	E	E
	Define key responsibilities and e.g. organizational chart (BSB external)			P	D	D	E	E															E	E	E
	Develop table of EMS organizational responsibilities		Nov. 04	P	D	D	E	E															E, D	E, D	E, D
Step 2: BSB Internal EMS Procedure "Environmental Objectives and Targets" developed		Jun. 04	Aug. 04	P																					
	Develop draft version and prepare workshop	Jun. 04		P			E	E	P																
	Review draft version by participants			P		E			E	E	E	E	E	E	E	E	E	E	E	E	E	E			
	Conduct workshop to discuss procedure			P		P	E	E	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
	Develop final version of procedure			P			E	E																	
	Review and approval of final procedure		Aug. 04	P	D	D			P	P	P	P	P	P	P	P	P	P	P	P	P	P			
Step 3: BSB Internal EMS Procedure "Environmental Management Program" developed		Jun. 04	Aug. 04	P																					
	Develop draft version and prepare workshop	Jun. 04		P			E	E	P																
	Review draft version by participants			P		E			E	E	E	E	E	E	E	E	E	E	E	E	E	E			
	Conduct workshop to discuss procedure			P		P	E	E	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
	Develop final version of procedure			P			E	E																	
	Review and approval of final procedure		Aug. 04	P	D	D			P	P	P	P	P	P	P	P	P	P	P	P	P	P			
Step 4: BSB Internal EMS Procedure "Training and Awareness" developed		Jun. 04	Aug. 04	P																					
	Develop draft version and prepare workshop	Jun. 04		P			E	E																	
	Review draft version by participants			P		E				E	E			E	E	E									
	Conduct workshop to discuss procedure			P		P	E	E		P	P			P	P	P									
	Develop final version of procedure			P			E	E																	
	Review and approval of final procedure		Aug. 04	P	D	D				P	P		P	P	P	P		P	P						
Step 5: BSB Internal EMS Procedure "Environmental Document Control" developed		Aug. 04	Sep. 04	P																					
	Develop draft version and prepare workshop	Aug. 04		P			E	E	P																
	Review draft version by participants			P		E			E	E	E	E	E	E	E	E	E	E	E	E	E	E			
	Conduct workshop to discuss procedure			P		P	E	E	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
	Develop final version of procedure			P			E	E																	
	Review and approval of final procedure		Sep. 04	P	D	D			P	P	P	P	P	P	P	P	P	P	P	P	P	P			
Step 6: BSB Internal EMS Procedure "Environmental Record Control" developed		Aug. 04	Sep. 04	P																					
	Develop draft version and prepare workshop	Aug. 04		P			E	E	P																
	Review draft version by participants			P		E			E	E	E	E	E	E	E	E	E	E	E	E	E	E			
	Conduct workshop to discuss procedure			P		P	E	E	P	P	P	P	P	P	P	P	P	P	P	P	P	P			

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Develop final version of procedure			p			E	E																		
Review and approval of final procedure		Sep. 04	p	D	D			P	P	P	P	P	P	P	P	P	P	P	P	P	P				
Step 7: BSB Internal EMS Procedure "Environmental Communication" developed	Sep. 04	Nov. 04	p												0										
Develop draft version and prepare workshop	Sep. 04		p			E	E																		
Review draft version by participants			p		E			E	E													E			
Conduct workshop to discuss procedure			p		P	E	E	P	P	P	P	P			P							P			
Develop final version of procedure			p			E	E																		
Review and approval of final procedure		Nov. 04	p	D	D			P	P	P	P	P			P							P			
Step 8: BSB Internal EMS Procedure "Environmental Monitoring and Measurement" developed	Sep. 04	Nov. 04	p																						
Develop draft version and prepare workshop	Sep. 04		p			E	E	P																	
Review draft version by participants			p		E					E		E	E	E	E		E	E							
Conduct workshop to discuss procedure			p		P	E	E	P		P		P	P	P	P		P	P							
Develop final version of procedure			p			E	E																		
Review and approval of final procedure		Nov. 04	p	D	D			P		P		P	P	P	P		P	P							
Step 9: BSB Internal EMS Procedure "Checking and Correction Actions / Internal EMS Audits" developed	Nov. 04	Dez. 04	p																						
Develop draft version and prepare workshop	Nov. 04		p			E	E	P																	
Review draft version by participants			p		E			E	E	E	E	E	E	E	E		E	E							
Conduct workshop to discuss procedure			p		P	E	E	P	P	P	P	P	P	P	P		P	P							
Develop final version of procedure			p			E	E																		
Review and approval of final procedure		Dez. 04	p	D	D			P	P	P	P	P	P	P	P		P	P							
Step 10: BSB Internal EMS Procedure "Environmental Management Review" developed	Nov. 04	Dez. 04	p																						
Develop draft version and prepare workshop	Nov. 04		p			E	E	P																	
Review draft version by participants			p		E			E	E	E	E	E	E	E	E		E	E							
Conduct workshop to discuss procedure			p		P	E	E	P	P	P	P	P	P	P	P		P	P							
Develop final version of procedure			p			E	E																		
Review and approval of final procedure		Dez. 04	p	D	D			P	P	P	P	P	P	P	P		P	P							
Step 11: BSB external processes (military units / tenants) are integrated in the EMS procedures	Jan. 05	Jul. 05	p																						
Identify requirements to integrate external BSB processes in the EMS procedures - desktop study	Jan. 05		p			E	E																		
Identify key parties which have to be integrated in the EMS procedures			p			E	E															P	P	P	
Develop first drafts of EMS procedures integrating external processes			p			E	E															P	P	P	
Review draft versions of EMS procedures by related parties			p																			E	E	E	
Conduct workshops (per procedure) to discuss procedure			p			E	E															P	P	P	
Develop final versions of procedures			p			E	E																		
Review and approval of final procedures		Jul. 05	p	D	D																	E, D	E, D	E, D	

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Milestone 6: FGS Media EMS Procedures and

Step	Activity	Start date	End date	Status	CDR	XO - EMS Manager	EMS Project Manager	External Consultant	Quality Management	Works Council	Safety Engineer	AST Commanders	DPW	DPW-B&G	DPW-Utility & Fe's	DPW-EMO	DPW-EP&S	DPW-ERMD	DOL	DCA	Housing	PAO	98th ASG	Military Units	Tenants
					Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role
Step 1: FGS Media EMS procedure "Air Emissions" developed					Sep. 04	Nov. 04	p																		
	Develop draft version and prepare workshop	Sep. 04		p			E	E																	
	Review draft version by participants			p							P				E	E									
	Conduct workshop to discuss procedure			p			E	E			P				P	P									
	Develop final version of procedure			p			E	E																	
	Review and approval of final procedure		Nov. 04	p	D	D					E		D, E		E	E									
Step 2: FGS Media EMS procedure "Drinking Water Management" developed					Sep. 04	Nov. 04	p																		
	Develop draft version and prepare workshop	Sep. 04		p			E	E																	
	Review draft version by participants			p							P				E	E									
	Conduct workshop to discuss procedure			p			E	E			P				P	P									
	Develop final version of procedure			p			E	E																	
	Review and approval of final procedure		Nov. 04	p	D	D					E		D, E		E	E									
Step 3: FGS Media EMS procedure "Waste Water Management" developed					Sep. 04	Nov. 04	p																		
	Develop draft version and prepare workshop	Sep. 04		p			E	E																	
	Review draft version by participants			p							P				E	E									
	Conduct workshop to discuss procedure			p			E	E			P				P	P									
	Develop final version of procedure			p			E	E																	
	Review and approval of final procedure		Nov. 04	p	D	D					E		D, E		E	E									
Step 4: FGS Media EMS procedure "Hazardous Materials Management" developed					Nov. 04	Jan. 05	p																		
	Develop draft version and prepare workshop	Nov. 04		p			E	E																	
	Review draft version by participants			p							P			E	E	E		E	E		E				
	Conduct workshop to discuss procedure			p			E	E			P			P	P	P		P	P		P				
	Develop final version of procedure			p			E	E																	
	Review and approval of final procedure		Jan. 05	p	D	D					E		D, E	E	E	E		E	E		E				
Step 5: FGS Media EMS procedure "Hazardous Waste Management" developed					Nov. 04	Jan. 05	p																		
	Develop draft version and prepare workshop	Nov. 04		p			E	E																	
	Review draft version by participants			p							P			E	E	E		E	E		E				
	Conduct workshop to discuss procedure			p			E	E			P			P	P	P		P	P		P				
	Develop final version of procedure			p			E	E																	
	Review and approval of final procedure		Jan. 05	p	D	D					E		D, E	E	E	E		E	E		E				

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Milestone 7: EMS related trainings

Step	Activity	Start date	End date	Status	CDR	XO - EMS Manager	EMS Project Manager	External Consultant	Quality Management	Works Council	Safety Engineer	AST Commanders	DPW	DPW-B&G	DPW-Utility & Fe's	DPW-EMO	DPW-EP&S	DPW-ERMD	DOL	DCA	Housing	PAO	98th ASG	Military Units	Tenants
					Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role
Step 1: Environmental related training plans developed (BSB internal)		Jul. 04	Dez. 04	p																					
	Review current trainings and define training requirements for BSB internal staff	Jul. 04		p			E	E		P															
	Develop training plan (e.g. table) for all functional roles of BSB internal staff			p			E	E		P	P		P	P	P	P	P	P	P	P	P				
	Approval of training plan		Dez. 04	p			D	D																	
Step 2: All necessary environmental related trainings conducted (BSB internal)		Jul. 04	Dez. 05	p																					
	Develop EMS training module for BSB staff	Jul. 04		p			E	E																	
	Train relevant staff regarding EMS and general Environmental Training (3 training sessions)			p			E	E																	
	Conduct necessary environmental related trainings		Dez. 05	p			P	P																	
Step 3: Environmental related training plans developed (BSB external)		Jan. 05	Jul. 05	p																					
	Review current trainings and define training requirements for BSB internal staff	Jan. 05		p			E	E															I	I	I
	Develop training plan (e.g. table) for all functional roles of BSB internal staff			p			E	E															P	P	P
	Approval of training plan		Jul. 05	p	D	D																	D	D	D
Step 4: All necessary environmental related trainings conducted (BSB external)		Jul. 04	Dez. 05	p																					
	Develop EMS training module for external BSB staff	Jul. 04		p			E	E																	
	Train all relevant regarding EMS and general Environmental Training			p			E	E																	
	Conduct necessary environmental related trainings		Dez. 05	p			P	P																	